

U.S. Patent Application No.: 09/387,310
Attorney Docket No.: P-5349-US
Non-Binding Draft Proposal – For Discussion Purposes Only

PROPOSED AMENDMENTS

Claims 1- 3 (Cancelled)

Claim 4 (Current proposed amendment): A method comprising:

receiving at a communication terminal received symbols of an
encoded message;

decoding a frame the encoded message based on fewer received
symbols than the number of symbols in the encoded message to provide a
decoded message; and

deciding to move the communication terminal to a sleep condition
based on the content of the decoded message.

frame and assumed values of symbols not received, wherein the
assumed values comprise values of a message which is expected with a
substantial probability.

Claim 5 (Cancelled)

Claim 6 (Current proposed amendment): A method according to claim 4, wherein decoding
the encoded message receiving fewer than all the symbols comprises ~~receiving
symbols of a message which is providing a decoded message either a message
indicating either that a the communication terminal should move to a the sleep
condition or a message indicating that the communication terminal should remain in
an awake condition, and wherein the assumed values comprise values of the message
indicating that the communication terminal should move to the sleep condition.~~

Claim 7 (Previously amended): A method according to claim 4, wherein receiving fewer than
all the symbols comprises receiving symbols over a paging channel.

Claim 8 (Previously amended): A method according to claim 4, wherein receiving
fewer than all the symbols comprises receiving symbols of a message which,

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in a substantial probability, indicates that the communication terminal should move to a sleep condition.

Claim 9 (Cancelled)

Claim 10 (Previously amended): A method according to claim 4, wherein the decoding is completed before receiving all the symbols in the frame.

Claim 11 (Previously amended): A method according to claim 4, wherein the decoding is performed using a predetermined number of received symbols.

Claim 12 (Previously amended): A method according to claim 4, wherein the decoding is performed using an adaptively adjusted number of received symbols.

Claim 13 (Original): A method according to claim 12, wherein the decoding comprises decoding using a number of received symbols adjusted responsive to an estimate of the quality of a channel over which the message is received.

Claim 14 (Original): A method according to claim 12, wherein decoding using the adaptively adjusted number of symbols comprises decoding using a number of received symbols adjusted responsive to a rate of decoding successes of previously received messages.

Claim 15 (Original): A method according to claim 12, wherein the decoding comprises decoding using a number of received symbols adjusted responsive to a confidence margin of one or more previous decoding.

Claim 16 (Previously amended): A method according to claim 4, wherein the decoding comprises decoding using the lowest number of received symbols which ensures a predetermined rate of success in decoding the message.

Claim 17 (Current proposed amendment): A method according to claim 6, comprising receiving symbols of the ~~frame~~ encoded message while decoding the content of the message.

Claim 18 (Current proposed amendment): A method according to claim 17, comprising decoding the ~~frame~~ encoded message a second time using more received symbols than used in the previous decoding.

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Claim 19 (Current proposed amendment): A method according to claim 18, wherein decoding the ~~frame~~ encoded message the second time is performed only if the first decoding failed.

Claim 20 (Current proposed amendment): A method according to claim 18, wherein decoding the ~~frame~~ encoded message the second time comprises using a number of received symbols determined responsive to results of the previous decoding.

Claim 21 (Previously amended): A method according to claim 6, wherein receiving the symbols comprises receiving during an idle mode of the communication terminal.

Claim 22 (Cancelled)

Claim 23 (Previously amended): A method comprising:

receiving at a communication terminal symbols of a frame of an encoded message over a transmission channel;

determining a number of received symbols responsive to the channel on which the symbols are received, wherein the determined number is less than the number of symbols in the frame for at least some of the received messages; and

decoding the frame using the determined number of received symbols.

Claim 24 (Previously amended): A method according to claim 23, wherein determining the number of received symbols comprises determining the number of received symbols responsive to whether the communication terminal is in idle mode.

Claim 25 (Previously amended): A method according to claim 23, wherein determining the number of received symbols comprises determining the number of received symbols responsive to success rates in decoding previously received frames.

Claim 26 (Cancelled)

Claim 27 (Previously amended): A method according to claim 23, wherein determining the number of received symbols comprises determining fewer symbols than a total number of symbols in the frame.

Claim 28 (Previously amended): A receiver comprising:

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a demodulator to provide a quality indicator based on received symbols of a frame of a transmitted encoded message;

a decoder to decode the frame based on at least some of the received symbols; and

control circuitry to determine based on the quality indicator how many of the received symbols of the frame are used in decoding the frame, the determined number being fewer than the number of symbols in the frame for at least some of the decoded frames.

Claim 29 (Original) A receiver according to claim 28, comprising a filler unit which provides padding symbols to the decoder in order to complete the received symbols to a complete frame.

Claim 30 (Current proposed amendment): A method ~~of providing a decoding a message~~, comprising:

receiving encoded symbols of a frame of a transmitted encoded message;
altering the values of at least one of the received symbols of the frame to correspond to values of an expected message type; and
decoding the frame based on the altered values.

Claim 31 (Original): A method according to claim 30, wherein receiving the encoded symbols comprises receiving fewer than the number of symbols in the frame.

Claim 32 (Canceled)

Claim 33 (Original): A method according to claim 30, wherein altering the values of at least one of the symbols comprises altering irrespective of the received values.

Claim 34 (Original): A method according to claim 30, wherein altering the values of at least one of the symbols comprises altering responsive to the received values.

Claim 35 (Original): A method according to claim 34, wherein the received encoded symbols comprise soft data and wherein altering the values of at least one of the symbols comprises raising the confidence values of symbols whose values coincide with values of an expected message type.

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Claim 36 (Original): A method according to claim 34, wherein the received encoded symbols comprise soft data and wherein altering the values of at least one of the symbols comprises lowering the confidence values of symbols whose values do not coincide with values of an expected message type.

Claim 37 (Original): A method according to claim 30, wherein altering the values of at least one of the symbols comprises altering the values provided the frame is altered less than an allowed extent.

Claim 38 (Original): A method according to claim 37, wherein altering the values of at least one of the symbols comprises determining a number of symbols which are to be altered and altering the frame only if the determined number of symbols is lower than an allowed number.

Claim 39 (Original): A method according to claim 30, comprising checking the decoded frame based on an error detection code to determine whether the decoding was successful.

Claim 40 (Original): A method according to claim 39, comprising performing an additional decoding attempt if the decoding was not successful.

Claim 41 (Original): A method according to claim 40, wherein the additional decoding attempt is performed without altering values of any of the symbols.

Claim 42 (Previously Amended): A method of providing a decoded value of a received message indicating that a communication terminal should move to a sleep condition, the method comprising:

- receiving encoded symbols of a frame of a transmitted encoded message;

- decoding the frame based on at least some of the received encoded symbols, so as to provide decoded bits;

- altering the values of at least one of the decoded bits of the frame; and

- moving said communication terminal to the sleep condition if the decoded values of the bits of the frame including the altered values do not include errors.

Claim 43 (Original): A method according to claim 42, wherein receiving the encoded symbols comprises receiving fewer than the number of symbols in the frame.

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Claim 44 (Original): A method according to claim 42, wherein altering the values of at least one of the bits comprises altering the values so as to correspond to values of an expected message type.

Claim 45 (Original): A method according to claim 42, wherein altering the values comprises altering irrespective of the values of the decoded bits.

Claim 46 (Original): A method according to claim 42, wherein altering the values comprises altering responsive to the values of the decoded bits.

Claim 47 (Original): A method according to claim 46, wherein altering the values comprises altering the values provided the frame is altered less than an allowed extent.

Claim 48 (Original): A method according to claim 47, wherein altering the values comprises determining a number of bits which are to be altered and altering the frame only if the determined number of bits is lower than an allowed number.

Claim 49 (Original): A method according to claim 42, comprising checking the provided decoded values based on an error detection code to determine whether the decoding was successful.

Claim 50 (Original): A method according to claim 49, comprising performing an additional decoding attempt if the decoding was not successful.

Claim 51 (Original): A method according to claim 50, wherein the additional decoding attempt is performed without altering values of any of the bits.